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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,358

07/10/2006

Kevin Liu

K0001-502-US

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EXAMINER

O DELL, DAVID K

ART UNIT

PAPER NUMBER

1625

MAIL DATE

DELIVERY MODE

11/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	Application No. 10/552,358	Applicant(s) LIU ET AL.	
	Examiner David K. O'Dell	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 125-144 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 125-144 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This application is a 371 of PCT/US04/10737 filed 04/07/2004 which claims benefit to the following U.S. provisional applications: 60/461,574 filed 04/07/2003; 60/461,606 filed 04/07/2003; 60/461,586 filed 04/07/2003.

Claims 125-144 are pending.

2. *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is quinoline, R1 is alkyl or benzyl, R2 is a diazine, drawn to quinoliny-diazines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group II, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is indole, R1 is alkyl or benzyl, R2 is a diazine, drawn to indolyl-diazines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group III, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is indole, R1 is alkyl or benzyl, R2 is a pyridine, drawn to indolyl-pyridines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group IV, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is indole, R1 is alkyl or benzyl, R2 is a benzothiazole, drawn to indolyl-benzothiazoles. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group V, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is indole, R1 is alkyl or benzyl, R2 is a benzoxazole, drawn to indolyl-benzoxazoles. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

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Group VI, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is quinoxaline, R1 is alkyl or benzyl, R2 is a diazine, drawn to quinoxaliny-diazines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group VII, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is quinoxaline, R1 is alkyl or benzyl, R2 is a pyridine, drawn to quinoxaliny-pyridine. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group VIII, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is quinoxaline, R1 is alkyl or benzyl, R2 is a benzoxazole, drawn to quinoxaliny-benzoxazole. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group IX, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is quinoxaline, R1 is alkyl or benzyl, R2 is a benzothiazole, drawn to quinoxaliny-benzothiazole. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group X, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is pyridine, R1 is alkyl or benzyl, R2 is a diazine, drawn to pyridiny-diazines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group XI, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is pyridine, R1 is alkyl or benzyl, R2 is a pyridine, drawn to pyridiny-pyridines. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group XII, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is pyridine, R1 is alkyl or benzyl, R2 is a benzothiazole, drawn to pyridiny-benzothiazole. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group XIII, Claims 125-144 drawn to compounds reading on claim 125 Formula I where the circular object with a nitrogen atom is pyridine, R1 is alkyl or benzyl, R2 is a benzoxazole, drawn to pyridiny-benzoxazole. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election may be made.

Group XIV, Claims 125-144 drawn to remaining compounds not encompassed by groups I-XIII. If this group is elected, a further election of a single disclosed species is also required. Further restriction based on the election will be made.

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PLEASE NOTE: Currently claims 126-144 depend from canceled claims. It is unclear what compounds these claims encompass since the canceled claim is not present. Appropriate correction is required.

The inventions listed as Groups I-XIV do not relate to a single general inventive concept under 35 USC 121 or PCT Rule 13.1 because:

PCT Rule 13.1 states that the international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention").

PCT Rule 13.2 states that the unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features.

Annex B, **Part 1(a)**, indicates that the application should relate to only one invention, of if there is more than one invention, inclusion is permitted if they are so linked to form a single general inventive concept.

Annex B **Part 1(b)**, indicates that "special technical features" means those technical features that as a whole define a contribution over the prior art.

Annex B **Part 1(c)**, further defines independent and dependent claims. Unity of invention only is concerned in relation to independent claims. Dependent claims are defined as a claim that contains all the features of another claim and is in the same category as the other claim. The category of a claim refers to the classification of claims according to subject matter e.g. product, process, use, apparatus, means, etc.

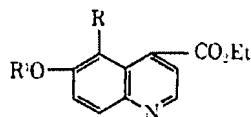
Annex B **Part 1(e)**, indicates that the permissible combinations of different categories of claims. **Part 1(e)I**, states that inclusion of an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product, and an independent claim for a use of the said product is permissible.

Annex B, **Part 1(f)**, indicates the "Markush practice" of alternatives in a single claim. **Part 1(f)I**, indicates the technical relationship and the same or corresponding special technical feature is considered to be met when (A) all alternatives have a common property or activity, and (B) a common structure is present or all alternatives belong to a recognized class of chemical compounds. Further defining (B), Annex B, **Part 1(f)(i-iii)**, the common structure must; a) occupy a large portion of their structure, or b) the common structure constitutes a structurally distinctive portion, or c) where the structures are equivalent and therefore a recognized class of chemical compounds, each member could be substituted for one another with the same intended result. That is, with a common or equivalent structure, there is an expectation relationship and the corresponding special technical feature result from a common (or equivalent) structure that is responsible for the common activity (or property). **Part 1(f) iv**, indicates that when all alternatives of a Markush grouping can be differently classified, it shall not, taken alone, be considered justification for finding a lack of unity. **Part 1(f)v**, indicates that "When dealing with alternatives, if it can be shown that at least *one* Markush alternative is not novel over the prior art, the question of unity of invention shall be reconsidered by the examiner"

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In the instant case, at least one Markush alternative is not novel because prior art RICE L MET AL: "Xanthoquininic Acid Derivatives" JOURNAL OF MEDICINAL CHEMISTRY, vol. 14, no. 4, 1971, pages 369-370, formula II on page 369, column 2 and compound 10 In table 1 on page 370, recites the compounds of the instant case (cited in the international search report along with numerous other references)

TABLE I
XANTHOQUININIC ACID DERIVATIVES



10	H	3-Diethylaminopropyl	172-175	$C_{19}H_{25}Cl_2N_2O_3$	C, H, N
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, thus the lack of a special technical feature is apparent.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David K. O'Dell whose telephone number is (571) 272-9071.

The examiner can normally be reached on Mon-Fri 7:30 A.M.-5:00 P.M EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary examiner, Rita Desai can be reached on (571)272-0684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D.K.O.

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PRIMARY EXAMINER
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11/27/07

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